REMARKS

With entry of this amendment, claims 64-66, 114-117, 121-122 and 125-126 are pending. The claims have been amended to overcome objections and rejections under 35 USC § 112, second paragraph. New claim 126 recites hybridization and washing conditions that are supported at page 25 of the specification. Support for the amended claims can be found in the originally filed claims and throughout the specification. No new matter has been added.

The Examiner has objected to the drawings because Figure 6 contains a non-English term. An amended version of Figure 6 is filed herewith, along with a marked up version showing the change. No new matter has been added. Entry is requested.

Claim 125 was objected to. The term "derived" has been changed to "obtained", as helpfully suggested by the Examiner. Withdrawal of the rejection is respectfully requested.

Rejection Under 35 USC §112, First Paragraph (Enablement)

Claims 66, 114-117, 121-122 and 125 have been rejected under 35 USC §112, first paragraph, for lack of enablement. The Examiner appears to take the position that the claims are overly broad, stating that the specification does not reasonably provide enablement for an isolated DNA which hybridizes to SEQ ID NO:39 or its complementary sequence under the conditions recited in claim 66. The Examiner states that the hybridization conditions set forth in claim 66 define low stringency, and that the majority of functional DNA sequences obtainable under such conditions are not expected to encode functional proteins that are functionally related to SEQ ID NO:40. This rejection is respectfully traversed for the following reasons.

It is respectfully noted that the hybridization conditions of claim 66 recite "stringent conditions" and the Examiner has provided no basis for his assertion that the conditions are "low stringency". Applicants respectfully submit that a significant number of the sequences obtained under the recited conditions will encode a protein having the activity of improving tolerance at least against salt stress, as recited, and that the sequences so obtained can be tested through routine methods known in the art for this property to determine whether they fall within the

scope of the claim. For these reasons, it is submitted that the claimed invention is clearly and fully enabled. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection Under 35 USC §112, First Paragraph (Written Description)

Claims 66, 114-117, 121-122 and 125 have been rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. It is the Examiner's position that the specification does not describe a representative number of DNA sequences of the genus claimed. This rejection is respectfully traversed for the following reasons.

Claim 66 and dependent claims 114-117, 121-122 and 125 cover an isolated DNA which hybridizes with the DNA according to claim 65 under specific stringent hybridization conditions and encodes a protein having the activity of improving tolerance at least against salt stress. It is respectfully submitted that sufficient information is presented in the specification to enable an ordinarily skilled artisan to make and test such DNA without undue experimentation. Furthermore, it would be expected by persons of skill in the art that a significant portion of sequences isolated and tested as described would exhibit the claimed activity. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection Under 35 USC §102

Claims 66, 114-117, 121-122 and 125 have also been rejected under 35 USC §102, as being anticipated by Sheveleva et al. This rejection is traversed for the following reasons.

Sheveleva et al. teach a tobacco plant transformed with the IMT1 cDNA expressed under control of a cauliflower mosaic virus 35S promoter enhancer to produce the enzyme D-myo-inositol methyltransferase. In contrast, the present inventors transformed plant cells with the mangl gene, set forth in SEQ ID NO:39, to produce cells having tolerance to salt stress. IMT1 cDNAs reported in the literature have sequences of 1494 bases and more than 3000 bases in length, with little similarity to SEQ ID NO:39, which has a length of 1602 bases. There is no expectation that the IMT1 cDNA would hybridize to the presently claimed sequence under the recited conditions. The IMT1 is a totally different DNA from the mangl in view of their homology, and it is certain that the IMT1 will not hybridize with the mangl. It is also noted as a

difference between the IMT1 and the mangl that the mangl protein does not have any common motif of methyltransferases.

For these reasons, it is respectfully submitted that the presently claimed invention is not anticipated by Sheveleva et al. Reconsideration and withdrawal of the rejection are respectfully requested.

All rejections having been addressed, it is respectfully submitted that the application is in condition for allowance, and Notice to that effect is respectfully requested. If the Examiner believes that prosecution would be expedited by a telephonic interview, a telephone call to the undersigned would be greatly appreciated.

Respectfully submitted,

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Ann S. Hobbs
Registration No. 36,830
VENABLE LLP
P.O. Box 34385
Washington, D.C. 20043-9998
Telephone: (202) 962-4800
Telefax: (202) 962-8300

FIG. 6